Claims

[c1] What is claimed is:

1. A method of manufacturing a cutter comprising a first substrate component, and a second substrate component, the method comprising providing one or more notches in the second substrate component and assembling the first substrate component and the second substrate component and diamond crystals into a desired configuration, and subjecting the assembly to high temperature and high pressure conditions to cause the diamond crystals to bond to one another and to the first and second substrate components to form a cutter having a single body of polycrystalline diamond.

[c2] 2. A method according to Claim 1, wherein the first and second substrate components engage one another.

[c3] 3. A method according to Claim 1, wherein the first and second substrate components are spaced apart from one another, some of the diamond crystals being located between the first and second substrate components.

[c4] 4. A method according to Claim 1, further comprising assembling at least a third substrate component with the first and second substrate components and diamond crystals.

[c5] 5. A method according to Claim 1, further comprising locating the first and second substrate components and diamond crystals within a container prior to subjecting the assembly to high pressure, high temperature conditions.

[c6] 6.A method according to Claim 1, further comprising including a binder catalyst material in the assembly.

[c7] 7. A method according to Claim 6, wherein the binder catalyst material is an iron group element.

[c8] 8. A method according to Claim 7, wherein the binder catalyst material is cobalt.

[c9] 9. A method according to Claim 1, wherein the first substrate component is

generally cylindrical and the second substrate component is of part-annular form.

[c10] 10. A method according to Claim 1, wherein the first substrate component is of grooved form.

[c11] 11. A cutter comprising a first substrate component, a notched second substrate component and a single table of polycrystalline diamond which is bonded to the first and second substrate components.

[c12] 12. A cutter according to Claim 11, further comprising at least one additional substrate component, the polycrystalline diamond table being bonded to the or each additional substrate component.

[c13] 13. A cutter according to Claim 11, wherein the first substrate component is of generally cylindrical form and the second substrate component is of part-annular form.

[c14] 14. A cutter according to Claim 11, wherein the first and second substrate components engage one another.

[c15] 15. A cutter according to Claim 11, wherein the first and second substrate components are spaced apart from one another.

[c16] 16. A cutter according to Claim 15, wherein the polycrystalline diamond table extends between the first and second substrate components.

[c17] 17. A cutter according to Claim 11, wherein the first substrate component is grooved.

[c18] 18. A method of manufacturing a cutter comprising forming an assembly by locating a powdered substrate component material, diamond crystals and a first substrate component within a container in a desired configuration, and subjecting the assembly to high temperature and high pressure conditions to cause the powdered substrate component material to form a second, notched substrate component and the diamond crystals to bond to one another and to the first and second substrate components to form a cutter having a single body

of polycrystalline diamond.

[c19] 19. A method according to Claim 18, further comprising including a binder catalyst material in the assembly.

[c20] 20. A method according to Claim 19, wherein the binder catalyst material is an iron group element.

[c21] 21. A method according to Claim 20, wherein the binder catalyst material is cobalt.

[c22] 22. A method according to Claim 18, wherein the powdered substrate component material is located to form an additional, third substrate component.